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EXAMINER

WASSUM, LUKE S

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/624,918	Applicant(s) TOONG ET AL.	
	Examiner Luke S. Wassum	Art Unit 2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>see detailed action</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. The examiner acknowledges the Applicants' claim to domestic priority under 35 U.S.C. § 119(e) to provisional U.S. Patent Application 60/397,542, filed 22 July 2002.
2. The examiner notes, however, that the provisional application is substantially more limited in its teaching than the instant application. At the least, the provisional application fails to disclose any aspect of analysis involving non-patent publications, association of times with data elements, and also fails to disclose any graphical display of the analysis results.

As a result, *at least* claims 4-7, 8-10, 12, 13 and 15-17 are not entitled to the priority date of the provisional application, since the limitations claimed are not supported by the disclosure of the cited provisional application.

The Invention

3. The claimed invention is a system for searching databases to identify a set of data elements referenced by a starting data element, and identifying a second set of data elements that are referenced by data elements in the first set.

Information Disclosure Statement

4. The Applicants' Information Disclosure Statements, filed 5 January 2004, 3 June 2004 and 2 February 2006, have been received and entered into the record. Since the Information Disclosure Statements comply with the provisions of MPEP § 609, the references cited therein have been considered by the examiner. See attached forms PTO-1449.

Drawings

5. The drawings are objected to because Figures 2-4 contain hand-written additions. While these drawings are acceptable for examination purposes, the examiner encourages the Applicant to submit formal drawings at the earliest opportunity. Early submission of formal drawings will help expedite post-allowance processing and publication of any issued patent.

6. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-6, 11-13 and 17-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

9. Regarding claims 1, 11 and 24, these claims recite the process of identifying data elements and relationships therebetween, but fails to recite a tangible result, a requirement for compliance with the provisions of 35 U.S.C. § 101 in view of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, published on 26 October 2005, which can be found at

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf,

particularly with respect to ANNEX IV Computer-Related Nonstatutory Subject Matter, beginning on page 50.

For a result to be tangible, it must be more than just a thought or a computation; it must have real-world value rather than an abstract result. For instance, note that the limitations of claims 7-10 and 14-16 are not rejected, since they recite the function of displaying the data resulting from the operation to a user, whereas (for instance), claim 1 merely cites 'generating data' as the result.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-9, 11-16 and 18-28 are rejected under 35 U.S.C. 102(b) as being anticipated by **Rivette et al.** (U.S. Patent 6,339,767).

12. Regarding claim 1, **Rivette et al.** teaches a method of searching a database of data elements as claimed, the method comprising:

a) based on a starting data element, identifying a first set of one or more data elements in the database, the data elements of the first set being referenced by the starting data element (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents which were cited during prosecution of the selected patent [backwards citation report], col. 87, lines 4-10, as well as identifying for a source patent those patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figures 86 and 87);

b) based on the first set, identifying a second set of one or more data elements in the database, the data elements of the second set referencing one or more of the data elements of the first set (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description

of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents which were cited during prosecution of the selected patent [backwards citation report], col. 87, lines 4-10, as well as identifying for a source patent those patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figures 86 and 87); and

- c) generating data based on the data elements of the first and second sets and the relationships therebetween (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents which were cited during prosecution of the selected patent [backwards citation report], col. 87, lines 4-10, as well as identifying for a source patent those patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figures 86 and 87).

13. Regarding claim 11, **Rivette et al.** teaches a method of searching a database to identify prior art publications for a starting patent publication as claimed, the method comprising:

- a) based on the starting patent publication, identifying a first set of one or more publications in the database, the publications of the first set being cited by the starting patent publication (see disclosure of the PatentRef table storing information on U.S. Patents

cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents which were cited during prosecution of the selected patent [backwards citation report], col. 87, lines 4-10; see also drawing Figure 86);

- b) based on the first set, identifying a second set of one or more publications in the database, the publications of the second set citing one or more of the publications of the first set (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87); and
- c) generating data based on the publications of the first and second sets and the citation relationships therebetween (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents which were cited during prosecution of the selected patent [backwards citation report], col. 87, lines 4-10, as well as identifying for a source patent those patents in which the source patent

was cited [forward citation report], col. 87, lines 11-15; see also drawing Figures 86 and 87).

14. Regarding claim 24, **Rivette et al.** teaches a processor program for searching a database to identify prior art publications for a starting patent publication as claimed, the processor program being stored on a processor readable medium and comprising instructions to cause the processor to:

- a) based on the starting patent publication, identify a first set of one or more publications in the database, the publications of the first set being cited by the starting publication (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents which were cited during prosecution of the selected patent [backwards citation report], col. 87, lines 4-10; see also drawing Figure 86);
- b) based on the first set, identify a second set of one or more publications in the database, the publications of the second set citing one or more of the publications of the first set (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for

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a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87); and

c) generate data based on the publications of the first and second sets and the relationship therebetween (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents which were cited during prosecution of the selected patent [backwards citation report], col. 87, lines 4-10, as well as identifying for a source patent those patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figures 86 and 87).

15. Regarding claim 2, **Rivette et al.** additionally teaches a method wherein identifying a first set of one or more data elements includes determining whether the starting data element includes one or more references to one or more other data elements and identifying a first set of one or more data elements based on the references (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents which were cited during prosecution of the selected patent [backwards citation report], col. 87, lines 4-10; see also drawing Figure 86).

16. Regarding claim 3, **Rivette et al.** additionally teaches a method wherein identifying a second set of one or more data elements includes determining whether one or more data elements in the database include one or more references to one or more of the data elements of the first set and identifying a second set of one or more data elements based on the references (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87).

17. Regarding claim 4, **Rivette et al.** additionally teaches a method wherein the starting data element is associated with a starting time and wherein identifying a first set of one or more data elements includes identifying data elements referenced by the starting data element and associated with first times earlier than the starting time (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents which were cited during prosecution of the selected patent [backwards citation report], col. 87, lines 4-10; see also drawing Figure 86; see also disclosure that filing date is included in the Patent Bibliographic Database, col. 18, lines 55-66; see also disclosure of extensive search and retrieval functionality and its relation to patent groups, col. 26 line 38 through col. 31, line 63).

18. Regarding claim 5, **Rivette et al.** additionally teaches a method wherein identifying the second set of one or more data elements includes identifying data elements that reference the data elements of the first set and that are associated with second times later than the first times (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87; see also disclosure that filing date is included in the Patent Bibliographic Database, col. 18, lines 55-66; see also disclosure of extensive search and retrieval functionality and its relation to patent groups, col. 26 line 38 through col. 31, line 63).

19. Regarding claim 6, **Rivette et al.** additionally teaches a method wherein identifying the second set of one or more data elements includes identifying data elements that reference the data elements of the first set and that are associated with second times later than the first times and earlier than the starting time (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87; see also disclosure that filing date is included in the Patent

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Bibliographic Database, col. 18, lines 55-66; see also disclosure of extensive search and retrieval functionality and its relation to patent groups, col. 26 line 38 through col. 31, line 63).

20. Regarding claims 7 and 14, **Rivette et al.** additionally teaches a method further comprising providing the generated data to one or more of a user and a display (see drawing Figures 157-164).

21. Regarding claims 8 and 15, **Rivette et al.** additionally teaches a method further comprising graphically displaying data elements of the first and second sets and the relationships therebetween (see drawing Figure 164).

22. Regarding claims 9 and 16, **Rivette et al.** additionally teaches a method wherein the publications are represented by geometric shapes and wherein the relationships are represented by lines between geometric shapes (see drawing Figure 164).

23. Regarding claims 12 and 13, **Rivette et al.** additionally teaches a method wherein the publications include one or more of patent publications and non-patent publications and wherein the patent publications include one or more of issued patents, published patent applications and non-published patent applications (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40).

24. Regarding claim 18, **Rivette et al.** additionally teaches a method further comprising based on the second set, identifying one or more candidate patent publications for one or more of

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invalidating prior art for the starting patent publication, licensing opportunities and seminal prior art (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87; see also disclosure that filing date is included in the Patent Bibliographic Database, col. 18, lines 55-66; see also disclosure of extensive search and retrieval functionality and its relation to patent groups, col. 26 line 38 through col. 31, line 63; see also disclosure of the use of patent citation analysis in competitive analysis and strategic planning, col. 103, line 24 through col. 108, line 14).

25. Regarding claims 19 and 25, **Rivette et al.** additionally teaches a method and processor program wherein identifying one or more candidate patent publications for invalidating prior art includes identifying one or more patent publications in the second set that do not cite the starting patent publication that are not cited by the starting patent publication and that are associated with filing dates earlier than the starting patent publication (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87; see also disclosure that filing date is included in the Patent Bibliographic Database, col. 18, lines 55-66; see also disclosure of extensive search and

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retrieval functionality and its relation to patent groups, col. 26 line 38 through col. 31, line 63; see also disclosure of the use of patent citation analysis in competitive analysis and strategic planning, col. 103, line 24 through col. 108, line 14).

26. Regarding claims 20 and 26, **Rivette et al.** additionally teaches a method and processor program wherein identifying one or more candidate patent publications for licensing opportunities includes identifying one or more patent publications that are associated with a first assignee and that are cited by one or more patent publications associated with one or more different second assignees (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87; see also disclosure that filing date is included in the Patent Bibliographic Database, col. 18, lines 55-66; see also disclosure of extensive search and retrieval functionality and its relation to patent groups, col. 26 line 38 through col. 31, line 63; see also disclosure of the use of patent citation analysis in competitive analysis and strategic planning, col. 103, line 24 through col. 108, line 14, and specifically the disclosure of identification of potential licensees at col. 103, lines 37-58).

27. Regarding claims 21 and 27, **Rivette et al.** additionally teaches a method and processor program wherein identifying one or more candidate patent publications for seminal prior art includes identifying one or more patent publications that cite a first number of patent publications

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that cite a first number of patent publications and that are cited by a second number of patent publications, wherein the second number is greater than the first number (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87; see also disclosure that filing date is included in the Patent Bibliographic Database, col. 18, lines 55-66; see also disclosure of extensive search and retrieval functionality and its relation to patent groups, col. 26 line 38 through col. 31, line 63; see also disclosure of the use of patent citation analysis in competitive analysis and strategic planning, col. 103, line 24 through col. 108, line 14).

28. Regarding claims 22 and 28, **Rivette et al.** additionally teaches a method and processor program further comprising based on the second set, identifying one or more co-citing patent publications, the co-citing patent publications including patent publications of the second set that are associated with one or more of filing dates later than the filing date of the starting patent publication and publication dates later than the filing date of the starting patent publication (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87; see also disclosure that filing date is included in the Patent Bibliographic Database, col. 18, lines 55-66; see

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also disclosure of extensive search and retrieval functionality and its relation to patent groups, col. 26 line 38 through col. 31, line 63; see also disclosure of the use of patent citation analysis in competitive analysis and strategic planning, col. 103, line 24 through col. 108, line 14).

29. Regarding claim 23, **Rivette et al.** additionally teaches a method further comprising based on the co-citing patent publications, determining a patent prosecution strategy including one or more of filing one or more claims in a pending application, filing one or more continuing applications of a parent application, declaring one or more interferences and disclosing one or more of the co-citing patent publications to a patent-granting office (see disclosure of the PatentRef table storing information on U.S. Patents cited during the prosecution of a given patent, col. 60, line 59 through col. 61, line 6; see also element 4028 in drawing Figure 40; see also detailed description of the Patent Citation Module, col. 87, line 4 through col. 89, line 53, which operates to identify, for a particular patent [called a source patent], the patents in which the source patent was cited [forward citation report], col. 87, lines 11-15; see also drawing Figure 87; see also disclosure that filing date is included in the Patent Bibliographic Database, col. 18, lines 55-66; see also disclosure of extensive search and retrieval functionality and its relation to patent groups, col. 26 line 38 through col. 31, line 63; see also disclosure of the use of patent citation analysis in competitive analysis and strategic planning, col. 103, line 24 through col. 108, line 14).

Claim Rejections - 35 USC § 103

30. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

31. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

32. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

33. Claims 10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rivette et al.** (U.S. Patent 6,339,767) as applied to claims 1-9, 11-16 and 18-28 above, and further in view of **Coleman et al.** ("Aesthetics-Based Graph Layout for Human Consumption").

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34. Regarding claims 10 and 17, **Rivette et al.** teaches a method of searching a database of data elements to identify prior art publications for a starting patent publication substantially as claimed.

Rivette et al. does not explicitly teach a method further comprising determining locations at which to display the geometric shapes and lines to reduce overlaps between geometric shapes and crossings between lines.

Coleman et al., however, teaches a method further comprising determining locations at which to display the geometric shapes and lines to reduce overlaps between geometric shapes and crossings between lines (see disclosure of a number of common-sense rules for drawing aesthetically pleasing graphs, section 2.1 Layout Aesthetics, beginning on page 1417).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate rules for drawing aesthetically pleasing graphs, since this would result in a graph that maximized the measure of desirability, or aesthetic, in the resulting graph layout (see Summary, page 1415, et seq.).

Conclusion

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hill et al. (U.S. Patent 5,808,615) teaches a process for mapping the relationship of the content of a collection of documents.

Wolfe (U.S. Patent 5,870,770) teaches a document research system and method for displaying citing documents.

Rivette et al. (U.S. Patent 5,991,751) teaches a method for patent-centric and group-oriented data processing and analysis.

Rivette et al. (U.S. Patent 5,991,780) teaches a method for selectively displaying patent text and images.

Pitkow et al. (U.S. Patent 6,038,574) teaches a method for clustering a collection of linked documents using co-citation analysis.

Pitkow et al. (U.S. Patent 6,182,091) teaches a method for finding related documents in a collection of linked documents using a bibliographic coupling link analysis.

Hill et al. (U.S. Patent 6,256,648) teaches a system for selecting and displaying hyperlinked information resources.

Wolfe (U.S. Patent 6,263,351) teaches a document research system for displaying and researching information about the interrelationships between documents.

Page (U.S. Patent 6,285,999) teaches a method of node ranking in a linked database.

Pitkow et al. (U.S. Patent 6,286,018) teaches a method for finding a set of documents relevant to a focus set using citation analysis and spreading activation techniques.

Lawrence et al. (U.S. Patent 6,289,342) teaches a system for autonomous citation indexing and literature browsing using citation content.

Pitkow et al. (U.S. Patent 6,457,028) teaches a method for finding related collections of linked documents using co-citation analysis.

Rivette et al. (U.S. Patent 6,499,026) teaches a system for visualizing data generated by patent-centric and group-oriented data processing using hyperbolic trees.

Toong et al. (U.S. Patent 6,604,114) teaches a system that processes a user query for information and organizes, analyzes and presents the relevant information to the user in graphical format.

Garfield et al. (U.S. Patent 6,728,725) teaches a process for creating and displaying a publication historiograph.

Lawrence et al. (U.S. Patent 6,738,780) teaches a system for autonomous citation indexing and literature browsing using citation context.

Page (U.S. Patent 6,799,176) teaches a method for scoring documents in a linked database.

Card et al. (U.S. Patent 6,952,806) teaches a medium containing information gathered from material including a source and interface for graphically displaying the information.

Blair et al. (U.S. Patent Application Publication 2002/0007373) teaches a method for enabling a user to organize and analyze information in electronic form.

Germeraad et al. (U.S. Patent Application Publication 2002/0035499) teaches a patent-related tool and methodology for use in the merger and acquisition process.

Lawrence et al. (U.S. Patent Application Publication 2002/0156760) teaches a system for autonomous citation indexing and literature browsing using citation context.

Garfield et al. (U.S. Patent Application Publication 2003/0001873) teaches a process for creating and displaying a publication historiograph.

Toong et al. (U.S. Patent Application Publication 2004/0133555) teaches a system that processes a user query for information and organizes, analyzes and presents the relevant information to the user in graphical format.

Garfield et al. (International Publication WO 02/091155 A2) teaches a process for creating and displaying a publication historiograph.

Garner et al. ("Three Drexel Information Science Research Studies") teaches a computer-oriented graph theoretic analysis of citation index structures.

Garfield ("Historiographs, Librarianship and the History of Science") teaches a new tool that promises to help the historian of science, the historiography, which graphically displays citation data that shows key scientific events, their chronology, their interrelationships and their relative importance.

Carpenter et al. ("Citation Rates to Technologically Important Patents") teaches a study to determine whether the average number of citations received by issued U.S. Patents from subsequently issued U.S. Patents is higher for patents associated with important technological advances than for a group of randomly selected patents.

Albert et al. ("Direct Validation of Citation Counts as Indicators of Industrially Important Patents") teaches a new and direct validation study of the use of patent citation analysis in corporate technological assessment, in which a strong association was found between citation counts for highly cited U.S. Patents and knowledgeable peer opinion as to the technical importance of the patents.

Fruchterman et al. ("Graph Drawing by Force-Directed Placement") teaches a system for drawing undirected graphs with straight edges which strives for uniform edge lengths.

Tunkelang ("A Practical Approach to Drawing Undirected Graphs") teaches techniques for drawing undirected graphs in accordance with several aesthetic criteria.

Breitzman et al. ("A Case for Patent Citation Analysis in Litigation") teaches that patent citation analysis can be used effectively in patent litigation.

Stobbs ("Tuning the Corporate Patent Portfolio Using the Latest Software Tools") teaches the use of Manning & Napier's MAPIT tool.

Hall et al. ("Market Value and Patent Citations: A First Look") teaches the question of whether citation-weighted patents can be a better measure of innovative output than pure patent counts.

Narin ("Tech-Line Background Paper") teaches the new Tech-Line® Technology Indicators system.

Aurigin ("How to Gain an Advantage in IP Licensing") is a slide presentation.

Tapling ("Licensing Executive Society Michigan Chapter Meeting") is a slide presentation.

Aurigin ("Aureka 7.0") is a product brochure.

Schwartz ("The Riches of the Knowledge Economy") is a slide presentation.

Breitzman et al. ("The Many Applications of Patent Analysis") teaches the use of patent analysis in many different contexts.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 571-272-4119. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean R. Homere can be reached on 571-272-3780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 571-273-4119. Such communications must be clearly marked as INFORMAL, DRAFT or UNOFFICIAL.

Customer Service for Tech Center 2100 can be reached during regular business hours at (571) 272-2100, or fax (571) 273-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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